

Reimagining the ICCPC – Building Officials Roundtable 1 – Summary of Key Points

Participants

- Brian Meacham (BM), Moderator
- Mark Metheny (MM), building official, Asheville, NC, incoming co-chair ICC building membership council, past-president of NC building inspectors association and ICC region 8, as part of BMC have been liaison to global membership council, which was great opportunity to learn about how countries with PB codes work, a fan of PB approach for existing buildings, first exposure when New Belgium built their brewery and had to work in performance with prescriptive
- Nicholas Daniels (ND), building official City of Kingsville, TX, long sought after thing where we have thousands of pages of code that cannot cover everything, need to look to alternative methods and materials, need something to help bridge the gap
- Tom Allen (TA), building official Lake County, FL, past-president Building Officials Assoc. of FL, building membership council for ICC, director region 9; FL does not adopt ICCPC, but it is available for use as alternative. Look forward to getting it updated to be alternative for unique structures.
- Jack Applegate (JA), CEO and President of NW Code Professionals and May Engineering, about 15 engineers and 45 code officials, WA, OR and ID, lot of plan reviews services and plan review in jurisdictions with limited capacity in structural area; past president of Region 2; problems with existing building code do not really understand it, which is why OR retained Ch 34 for a while; work a lot with historic buildings – almost all AMM – often performance-based approaches; in general, challenges with advancing technologies, materials, energy code – cannot keep up within 3-year cycle, performance code important; opportunity to make performance code better to help everyone
- Wayne Pimental (WP), Naragansett, RI, most building officials work on prescriptive, look forward to helping make this a simpler process that can work for everyone
- Darren Hobbs (DH), Director of Regulatory Compliance for the State of CT, oversees development of state's building code, fire safety code and fire prevention code and education programs for code officials, worked in government in England on their functional regulations, state of CT interest is to hope to help improve regulatory environment and code use, and a key aspect will be education.
- Sam Steele (SS), construction inspection manager, City of Seattle, currently VC of ICC major jurisdictions committee and secretary of region 2, eager to learn as much as possible on evolution of the code and interactions to inspections
- Gary Lewis (GL), building official City of Summit, NJ, part of original ICCPC ending up as Chair, in effort to develop code that has not been adopted; SFPE on parallel path for fire to develop standard to help bring along new technology; use ICCPC in NJ since AMM clause not very good, use of administrative section of ICCPC helps to put everyone on the same path, something like this is able to help all jurisdictions at some point, whether energy, new construction, or other
- Hope Medina (HM), Shums Coda Associates, CO, previously permit tech, inspector, plans examiner; while certified in various trades, most known for energy and sustainability; currently VC of sustainability council for a few more days; happy to help move this code along
- Jon Siu (JS), up until year ago principal engineer and building official for Seattle, currently technical consultant for WA Association of Building Officials, Seattle got into PBD before there was a PBD based on high-rise design, many fire designs often related to structural, have written about building official's reluctance to use PB code

Key Take-Aways

- General support for performance-based codes (PBC) and performance-based design (PBD) within this group, but also several challenges and issues to be addressed.
- PBD requires certain level of expertise for design and review. Code officials in difficult situation with multiple responsibilities, limited resources, and often lack of expertise on staff. Situation is exasperated by the nature of PBC and PBD requiring judgments by code officials. Difficult without expertise, time and resources, and complicated further by liability concerns for making decision on items that differ from straightforward code compliance.
- Both PBD and alternative materials and methods (AMM) approaches suffer from lack of clear objectives (intents), measurable and broadly agreed criteria (what is acceptable, how is it measures), and clear connection to means of verification (for design and review). This is particularly a concern in fire – structural and energy are in better shape with these components. In general, confidence in data, tools, methods and those applying them relates to confidence in acceptance that PBD is appropriate. Need to actively decide what performance we want.
- PBD is not something that can be done by everyone, on the design or approval side, so consideration should be given to what knowledge / competencies are needed, by whom, and how to provide resources to address gaps.
- Education is important for all in the process.
- Guidance for how to review PBD would be helpful for code officials. This was done in England and helped significantly. When knowledge levels rise, support mechanism exist, and confidence in data, tools and methods exist, confidence in the system and application of PBD increases.
- Self-certification, third-party review, peer-review and private-sector building control are potential options to help with lack of knowledge and resource in jurisdictions. However, need to have mechanisms to control for the people doing the work, the same as in design and government approval (e.g., licensing, certification, accreditation). Need to be careful with licenses and certifications, both because those are often determined based on a test to some minimum level and do not reflect competency, and because it would require audits.
- PBD is not needed for every building, at least for many regulated areas (energy might be different). With respect to determining when PBD is appropriate, the concept of threshold buildings may be appropriate, as used in some states (e.g., CT, FL) for triggering peer review of primary structure design. This might be helpful in classifying what triggers PBD and the requirements to be associated with it.
- Need to make performance code usable, marketable and effective. At some point, though, must be aware that an aspect of performance is that the approach is used because some things have not been done before. In addition to upfront cost and documentation, need to bound the approval to the context of the analysis, and have continuous checking that bounding conditions are maintained.
- It is critical to have a good understanding the risk and the assumptions involved. In England, changed fire code to risk assessment and management approach. Requires documented risk assessment, with all assumptions, of what had been done. Then became a living document, with any alteration, change, maintenance included as update. Everyone becomes responsible party.
- This is a needed effort. Need to take the time to do it right.